

Report of Results: MVA5394**Analysis of Settled Dust - Fairview Treatment Center****Introduction**

On 23 July 2007, we received five settled dust samples from Clark Sief Clark, reportedly collected from the Fairview Treatment Center, 2501 Harbor Blvd, Costa Mesa, California. We were asked to determine the asbestos levels in the dust and possible sources for the asbestos. Upon receipt, the samples were assigned MVA Scientific Consultants laboratory identification numbers as follows:

<u>Sample ID</u>	<u>Sample Description</u>	<u>MVA Number</u>
22VA	4 th floor, Room 4003 Top of black musical storage cabinet	S0880
23VA	3 rd floor, Rm 3120 Top of storage shelf	S0881
24VA	3 rd floor, Rm 3026 Top of TV cabinet	S0882
25VA	2 nd floor, Rm 2023 Top of TV cabinet	S0883
26VA	1 st floor, Rm 1055 Communications Rm- Top of Panel C	S0884

All analyses were carried out in our laboratory during the period 23 July through 27 August 2007.

Methods

The samples were analyzed according to ASTM Method D5755-03 using either a Philips model EM420 or a Philips model CM120 transmission electron microscope (TEM), equipped with an Oxford INCA energy dispersive x-ray spectrometer (EDS). Additional analyses for dust constituents that may serve as source indicators were also conducted by TEM/EDS.

Results and Discussion

The results of analysis for these samples are presented in Table 1. The Appendix contains a summary of the analytical results, the laboratory count sheets, and images and EDS spectra of typical asbestos fibers found in these samples. Also contained in the appendix are images and spectra showing vermiculite associated with chrysotile fibers and other asbestosiform amphibole minerals typical of those known as "Libby amphibole" and observed as contaminants in vermiculite from the Libby, Montana vermiculite mine operated by W.R. Grace.



Conclusions

Dust analyzed in this study contains elevated levels of chrysotile asbestos. Portions of the dust are consistent with derivation from a chrysotile/vermiculite bearing fireproofing. Asbestiform amphibole consistent with "Libby amphibole" was also found, indicating that the vermiculite in this sample originated at least in part at W.R. Grace's Libby vermiculite mine.

Table 1. Asbestos Concentration in Settled Dust Samples

Sample ID	MVA Number	Asbestos Str/cm ²
22VA	S0880	None Detected
23VA	S0881	None Detected
24VA	S0882	None Detected
25VA	S0883	<41,866
26VA	S0884	837,333



Chain of Custody

TEM Micro-Vacuum

Requested TAT (Circle One) Same Day One Day (24hr) Normal (48hr)
 Analysis Type (Circle One) Air Surface Bulk Water

CSC Project #	Claim #	Sampling By	# of Samples	Date(s) Taken	Page #	Total Pages
1014265	FAT	5	7.19.07	Of		
Project Name & Location:				Client Information:		
Fairview Treatment Center 2501 Harbor Blvd. Costa Mesa, Ca				DGS Glen Connor		
Sampling Area and/or Building #:						
Sample #	Date	Sample Location	Pump #	Start Flow Rate End Flow Rate	Total Time End Time	Total Volume/Area
22VA	7.19.07	4th floor Run 1003 Top of black musical storage cabinet	Trap #6	10.91 10.91	2 min	100 cu 2
23VA	"	3rd floor Run 1001 Top of Storage Shelf	Trap #6	10.91 10.91	2 min	100 cu 2
24VA	"	3rd floor Run 3026 Top of TV Cabinet	Trap #6	10.91 10.91	2 min	100 cu 2
25VA	"	2nd floor Run 2023 Top of TV Cabinet	Trap #6	10.91 10.91	2 min	100 cu 2
26VA	"	1st floor Run 1055 Communication Run - Top of Panel	Trap #6	10.91 10.91	2 min	100 cu 2
Requisitioned By (Print & Sign)						
Requisitioned By (Print & Sign)		Date & Time	Received By (Print & Sign)	Received By (Print & Sign)	Date & Time	Analysis By (Print & Sign)
Requisitioned By (Print & Sign)		7.19.07 8:51 PM	Requisitioned By (Print & Sign)	Tim B. Vaneck	7.19.07	Analysis Date & Time
Date & Time						

APPENDIX



ASTM D5755 Results**MVA 5394**

By: W.Hill

Client project number:Str/cm = No Str. X CFA X Total Vol.

Grid Op. X GO Area X Vol Filt X Area Sampled

MVA #: S0880 **Client #:** 22.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
0	1256	10	0.009	1	100	100

Anal. Sens = 13955.556 Str/CM2 **LOD =3*** **Anal. Sens =** 41866.667**Total =** 0.000 Str/CM2**MVA #:** S0881 **Client #:** 23.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
0	1256	10	0.009	1	100	100

Anal. Sens = 13955.556 Str/CM2 **LOD =3*** **Anal. Sens =** 41866.667**Total =** 0.000 Str/CM2**MVA #:** S0882 **Client #:** 24.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
0	1256	10	0.009	1	100	100

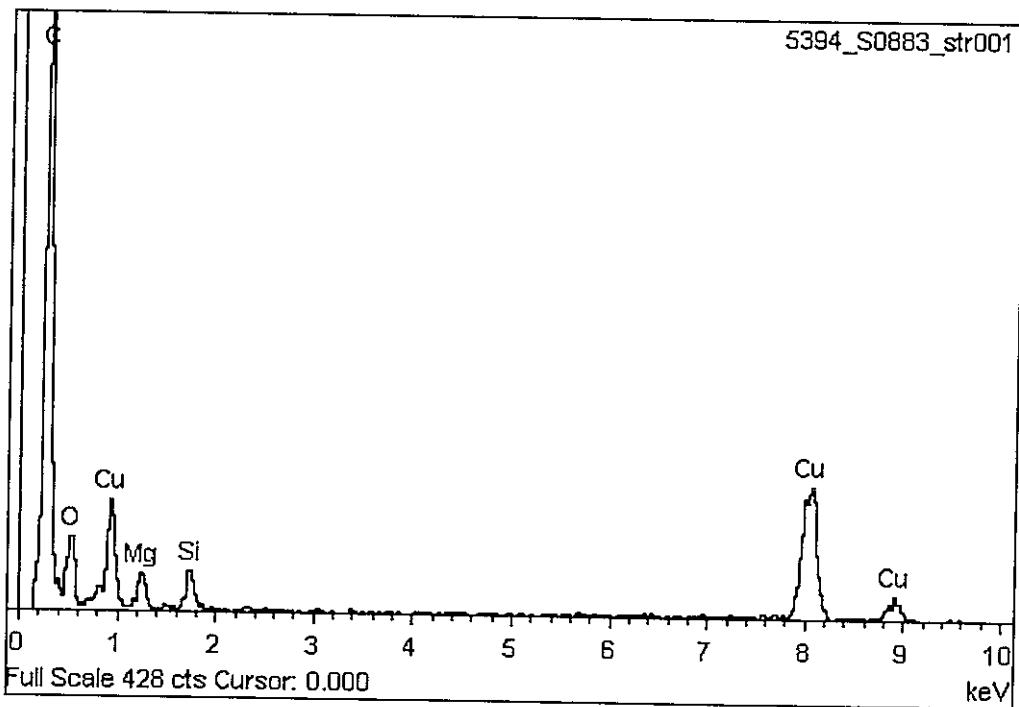
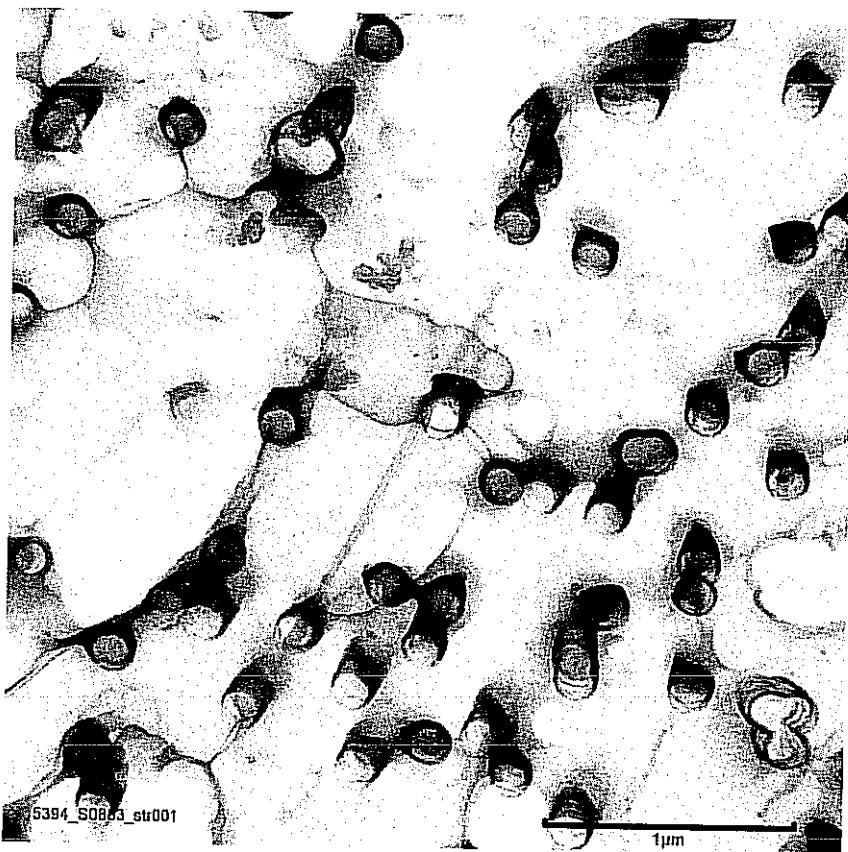
Anal. Sens = 13955.556 Str/CM2 **LOD =3*** **Anal. Sens =** 41866.667**Total =** 0.000 Str/CM2**MVA #:** S0883 **Client #:** 25.VA

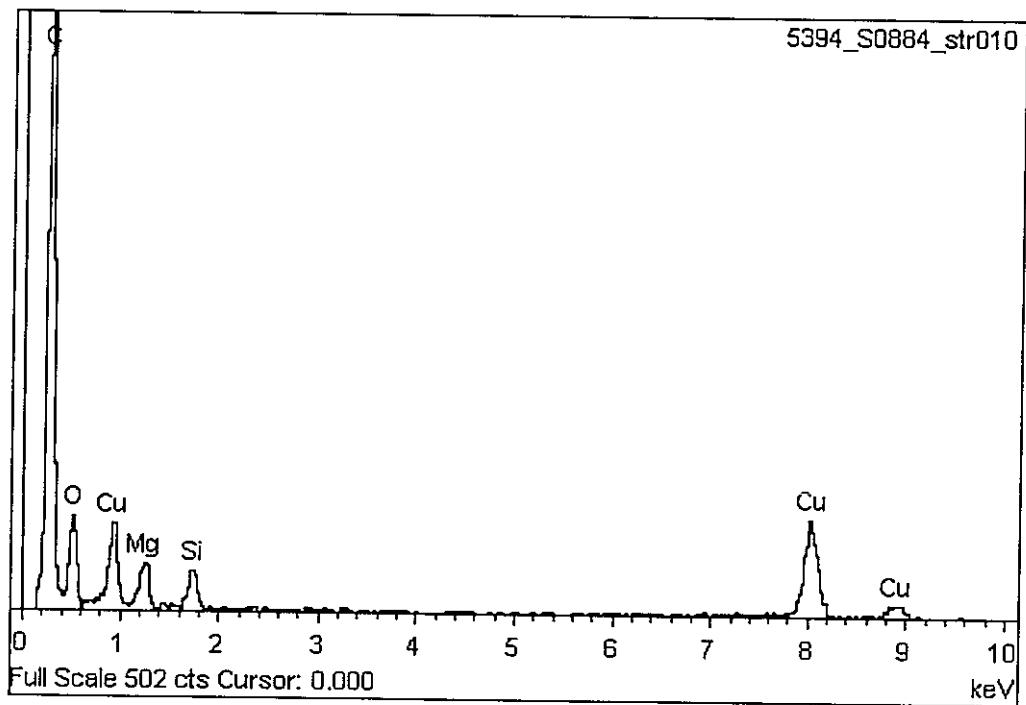
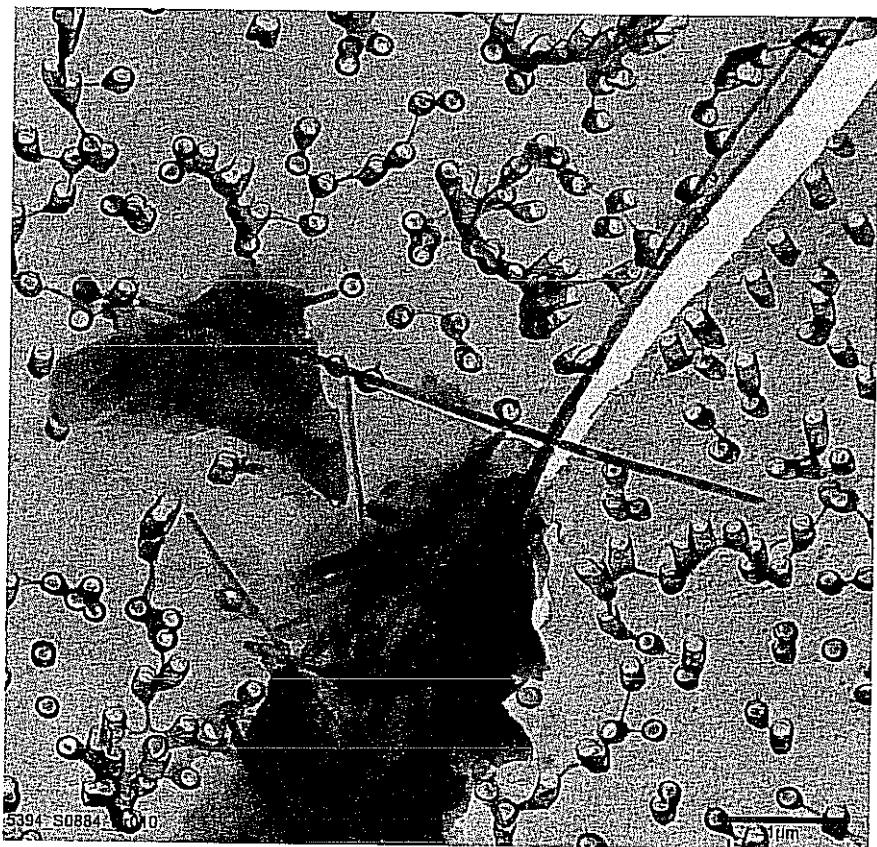
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
2	1256	10	0.009	1	100	100

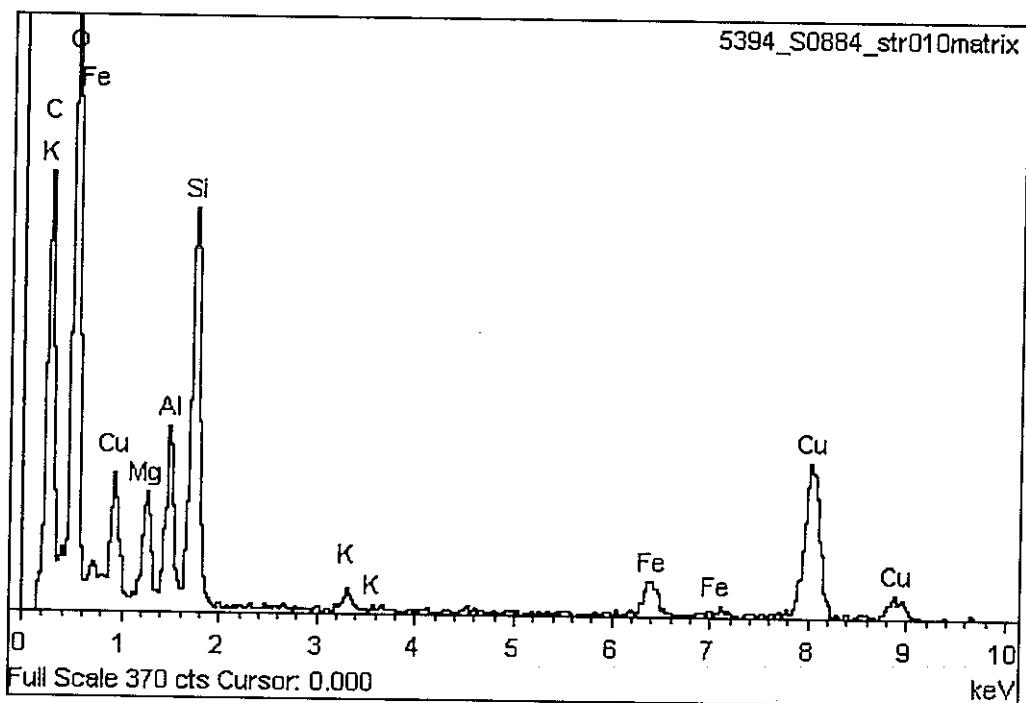
Anal. Sens = 13955.556 Str/CM2 **LOD =3*** **Anal. Sens =** 41866.667**Total =** 27911.111 Str/CM2**MVA #:** S0884 **Client #:** 26.VA

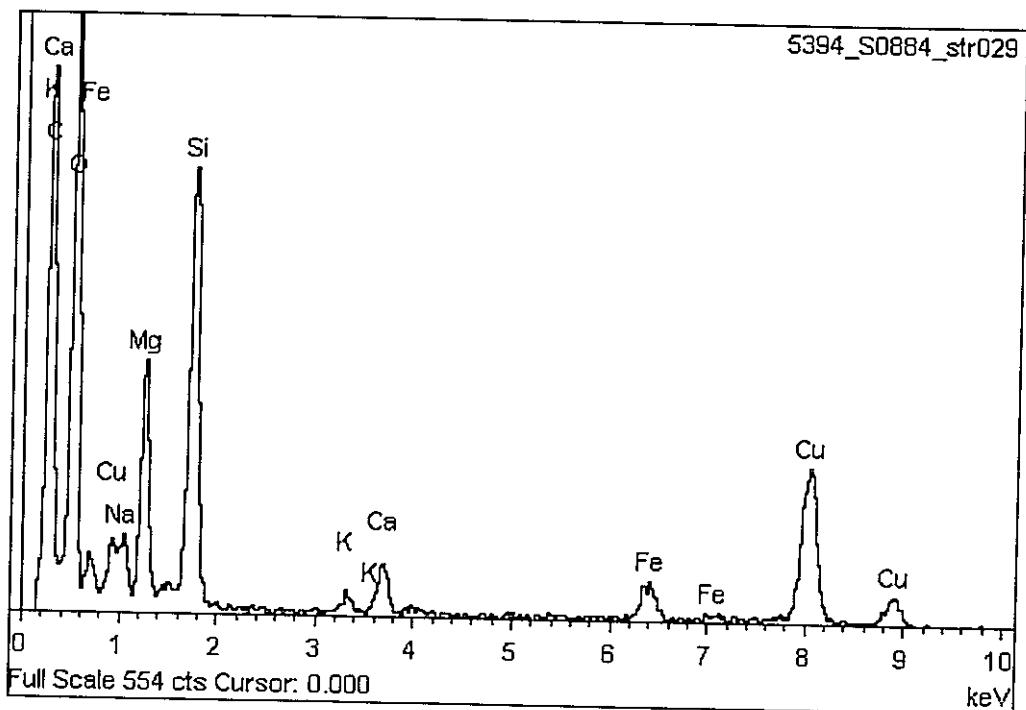
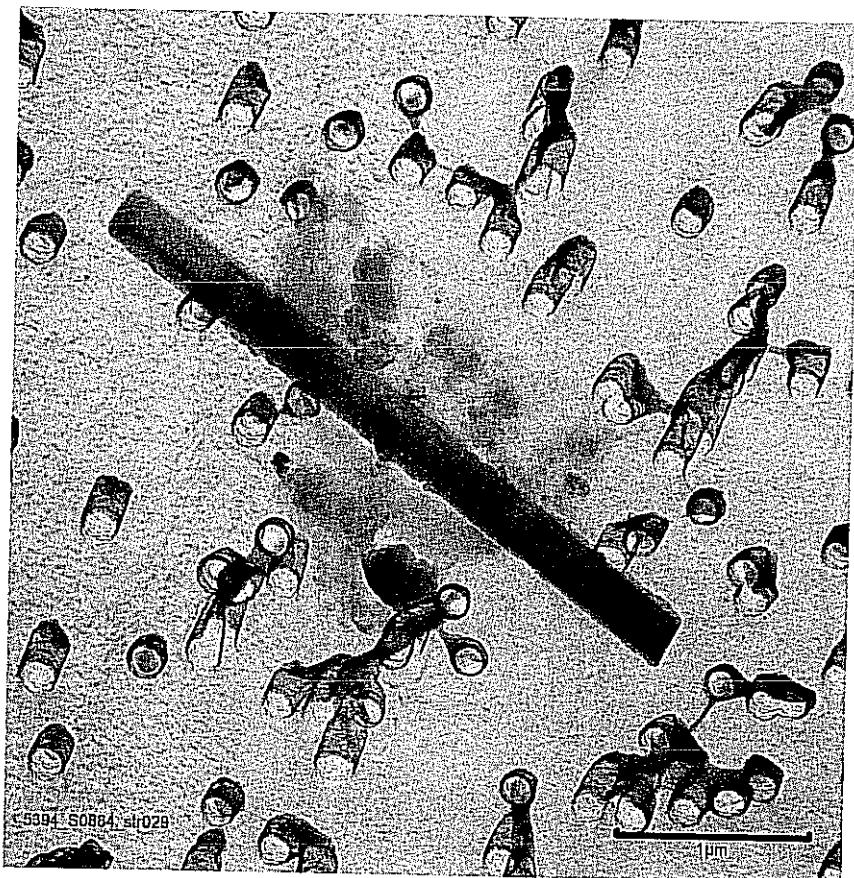
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
60	1256	10	0.009	1	100	100

Anal. Sens = 13955.556 Str/CM2 **LOD =3*** **Anal. Sens =** 41866.667**Total =** 837333.333 Str/CM2***According to ASTM D6620**









MVA Project# 5394
MVA Sample# S0880
Client I.D.: 22.VA
Instrument: Philips 120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm²): 100
Amt Prepped(cm²): 1
Filter Area (mm²): 1256
Filter Type: PC
Openings Analyzed: 10
Grid Opening (mm²): 0.009

Analyst: WH
Date: 8/13/2007
Page: 1 of 1
Comments: 1 ml
Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10 000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amosite

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AG = Anthophyllite, MM = Magnesio-anthophyllite

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Surface Dust Sample Analysis Sheet

MVA Project# 5394
MVA Sample# S0881
Client I.D.: 23.VA
Instrument: Philips 120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm^2): 100
Amt Prepped(cm^2): 1
Filter Area (mm^2): 1256
Filter Type: PC
Openings Analyzed: 10
Grid Opening (mm^2): 0.009

Analyst: WH
Date: 8/14/2007
Page: 1 of 1
Comments: 1 ml
Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, Na = Na₂O, Al = Al₂O₃

MVA Project# 5394
MVA Sample# S0882
Client I.D.: 24.VA
Instrument: Philips 120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm^2): 100
Amt Prepped(cm^2): 1
Filter Area (mm^2): 1256
Filter Type: PC
Openings Analyzed: 10
Grid Opening (mm^2): 0.009

Analyst: WH
Date: 8/16/2007
Page: 1 of 1
Comments: 1.0 ml
Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10 000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

Structural type: S = Saddle, C = Cluster

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, MM = Mn.

MVA SCIENTIFIC CONSULTANTS

Surface Dust Sample Analysis Sheet

MVA Project# 5394
MVA Sample# S0883
Client I.D.: 25.VA
Instrument: Philips 120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm²): 100
Amt Prepped(cm²): 1
Filter Area (mm²): 1256
Filter Type: PC
Openings Analyzed: 10
Grid Opening (mm²): 0.009

Analyst: WH
Date: 8/16/2007
Page: 1 of 1
Comments: 1.0 ml
Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10 000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysolite, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TiO₂ = Titanium dioxide

Surface Dust Sample Analysis Sheet

MVA Project# 5394
 MVA Sample# S0884
 Client I.D.: 26.VA
 Instrument: Philips 120
 Magnification: 24,000
 Acc. Voltage: 100

Amt Collected(cm²): 100
 Amt Prepped(cm²): 1
 Filter Area (mm²): 1256
 Filter Type: PC
 Openings Analyzed: 10
 Grid Opening (mm²): 0.009

Analyst: WH
 Date: 8/14/2007
 Page: 1 of 2
 Comments: 1 ml
 ASTM Method: D6480
 or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	B8	1	F	6	0.1	C			2.5	0.04
		2	M	5.0	0.6	C	C	photo	2.1	0.25
		3	F	5.6	0.1	C			2.3	0.04
		4	F	13.5	0.1	C			5.6	0.04
		5	F	20.0	0.1	C			8.3	0.04
		6	F	2.6	0.1	C			1.1	0.04
		7	M	2.1	0.1	C			0.9	0.04
		8	F	3.0	0.1	C			1.3	0.04
		9	M	23.5	0.1	C			9.8	0.04
		10	F	12.0	0.1	C	C	photo	5.0	0.04
C5		11	B	40.1	4.5	C			16.7	1.88
		12	M	11.0	0.1	C			4.6	0.04
		13	F	3.0	0.1	C			1.3	0.04
		14	F	26.5	0.1	C			11.0	0.04
D2		15	F	9.5	0.1	C			4.0	0.04
		16	F	6.0	0.1	C			2.5	0.04
		17	F	5.0	0.2	C			2.1	0.08
		18	F	5.5	0.1	C			2.3	0.04
		19	M	3.0	0.2	C			1.3	0.08
G3		20	F	2.5	0.1	C			1.0	0.04
		21	F	3.5	0.1	C			1.5	0.04
		22	F	15.6	0.1	C			6.5	0.04
J7		23	F	53.0	0.1	C			22.1	0.04
		24	F	5.6	0.1	C			2.3	0.04
		25	F	3.0	0.1	C			1.3	0.04
		26	F	10.5	0.1	C			4.4	0.04
		27	F	6.5	0.1	C			2.7	0.04
2	B3	28	B	10.5	0.5	C			4.4	0.21
		29	F	8.0	0.5	A	AO	Amphibole "other"	3.3	0.21
		30	M	8.5	0.1	C			3.5	0.04
		31	B	5.5	0.2	C			2.3	0.08
		32	B	32.2	0.4	C			13.4	0.17
		33	B	5.0	0.2	C			2.1	0.08
		34	F	3.5	0.1	C			1.5	0.04
C5		35	B	55.5	1.5	C			23.1	0.63

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non-Alkali.

Report of Results: MVA5394

**Analysis of Settled Dust
Stockton State Building**

Prepared for:

**State of California
Dept of General Services
Seismic & Special Programs
707 West 3rd St.
West Sacramento, CA 95605**

Respectfully Submitted by:

Tim B. Vander Wood

**Tim B. Vander Wood, Ph.D.
Executive Director**

**MVA Scientific Consultants
3300 Breckinridge Boulevard
Suite 400
Duluth, GA 30096**

29 August 2007



Report of Results: MVA5394**Analysis of Settled Dust - Stockton State Building****Introduction**

On 20 July 2007, we received five settled dust samples from Clark Sief Clark, reportedly collected from the Stockton State Building at 31 E. Channel Street, Stockton, California. We were asked to determine the asbestos levels in the dust and possible sources for the asbestos. Upon receipt, the samples were assigned MVA Scientific Consultants laboratory identification numbers as follows:

<u>Sample ID</u>	<u>Sample Description</u>	<u>MVA Number</u>
01.VA	2 nd Floor, Room #219A, Ceiling Tile Surface	S0832
02.VA	2 nd Floor, Room #218, Ceiling Tile Surface	S0833
03.VA	4 th Floor, Room #400, Ceiling Tile Surface	S0834
04.VA	3 rd Floor, Room #306 Storage, Ceiling Tile Surface	S0835
05.VA	1 st Floor, 108-Kitchen, Ceiling Tile Surface	S0836

All analyses were carried out in our laboratory during the period 20 July through 27 August 2007.

Methods

The samples were analyzed according to ASTM Method D5755-03 using either a Philips model EM420 or a Philips model CM120 transmission electron microscope (TEM), equipped with an Oxford INCA energy dispersive x-ray spectrometer (EDS). Additional analyses for dust constituents that may serve as source indicators were also conducted by TEM/EDS.

Results and Discussion

The results of analysis for these samples are presented in Table 1. The Appendix contains a summary of the analytical results, the laboratory count sheets, and images and EDS spectra of typical asbestos fibers found in these samples. Also contained in the appendix are images and spectra showing vermiculite associated with chrysotile fibers and other asbestiform amphibole minerals typical of those known as "Libby amphibole" and observed as contaminants in vermiculite from the Libby, Montana vermiculite mine operated by W.R. Grace.



Conclusions

Dust analyzed in this study contains elevated levels of chrysotile asbestos. Portions of the dust are consistent with derivation from a chrysotile/vermiculite bearing fireproofing. Asbestiform amphiboles consistent with "Libby amphiboles" were also found, indicating that the vermiculite in this sample originated at least in part at W.R. Grace's Libby vermiculite mine.

Table 1. Asbestos Concentration in Settled Dust Samples

Sample ID	MVA Number	Asbestos Str/cm ²
01-VA	S0832	13,490,370
02-VA	S0833	307,022
03-VA	S0834	22,328,889
04-VA	S0835	<4,187
05-VA	S0836	11,862,222



Chain of Custody- TEM Micro-Vacuum

HEALTH & SAFETY • ENGINEERING • ENVIRONMENTAL



Analysis Type (Circle One)	Air	Same Day	One Day (24hr)	Normal (48hr)
Requested TAT (Circle One)			Surface	Bulk

APPENDIX



ASTM D5755 Results

MVA 5394

By: W.Hill

Client project number:

Str/cm = No Str. X CFA X Total Vol.

Grid Op. X GO Area X Vol Filt X Area Sampled

MVA #: S0832 Client #: 01.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
58	1256	6	0.009	0.1	100	100

Anal. Sens = 232592.593 Str/CM2 LOD =^{3*} Anal. Sens = 697777.778

Total = 13490370.370 Str/CM2

MVA #: S0833 Client #: 02.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
22	1256	10	0.009	1	100	100

Anal. Sens = 13955.556 Str/CM2 LOD =^{3*} Anal. Sens = 41866.667

Total = 307022.222 Str/CM2

MVA #: S0834 Client #: 03.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
64	1256	4	0.009	0.1	100	100

Anal. Sens = 348888.889 Str/CM2 LOD =^{3*} Anal. Sens = 1046666.667

Total = 22328888.889 Str/CM2

MVA #: S0835 Client #: 04.VA

Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
2	1256	10	0.009	10	100	100

Anal. Sens = 1395.556 Str/CM2 LOD =^{3*} Anal. Sens = 4186.667

Total = 2791.111 Str/CM2

MVA #: S0836 Client #: 05.VA

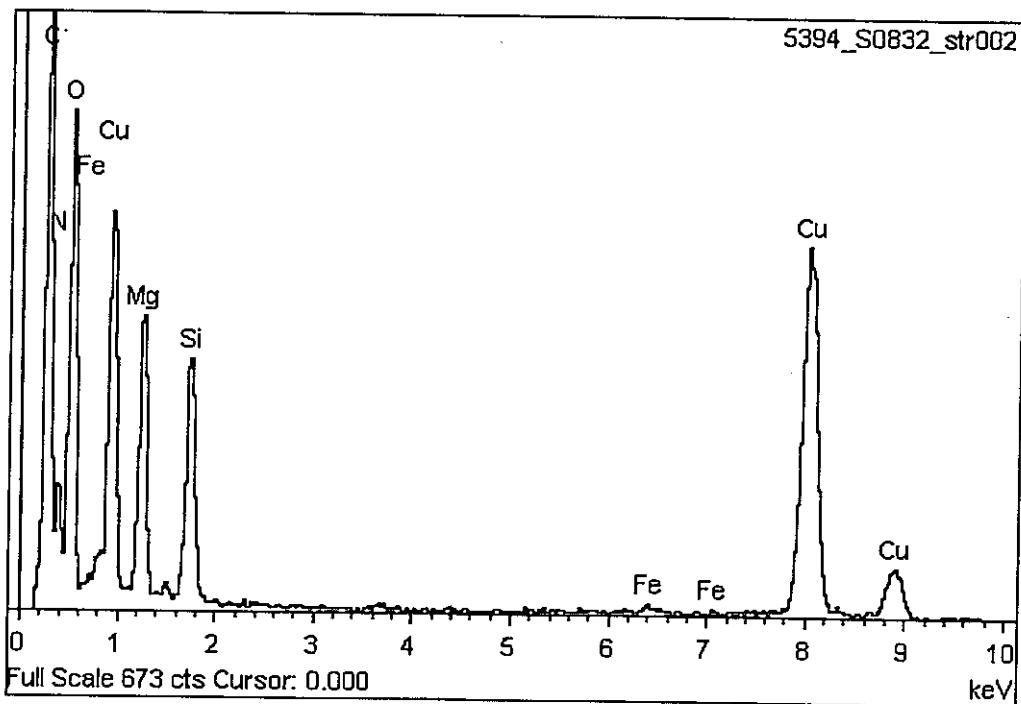
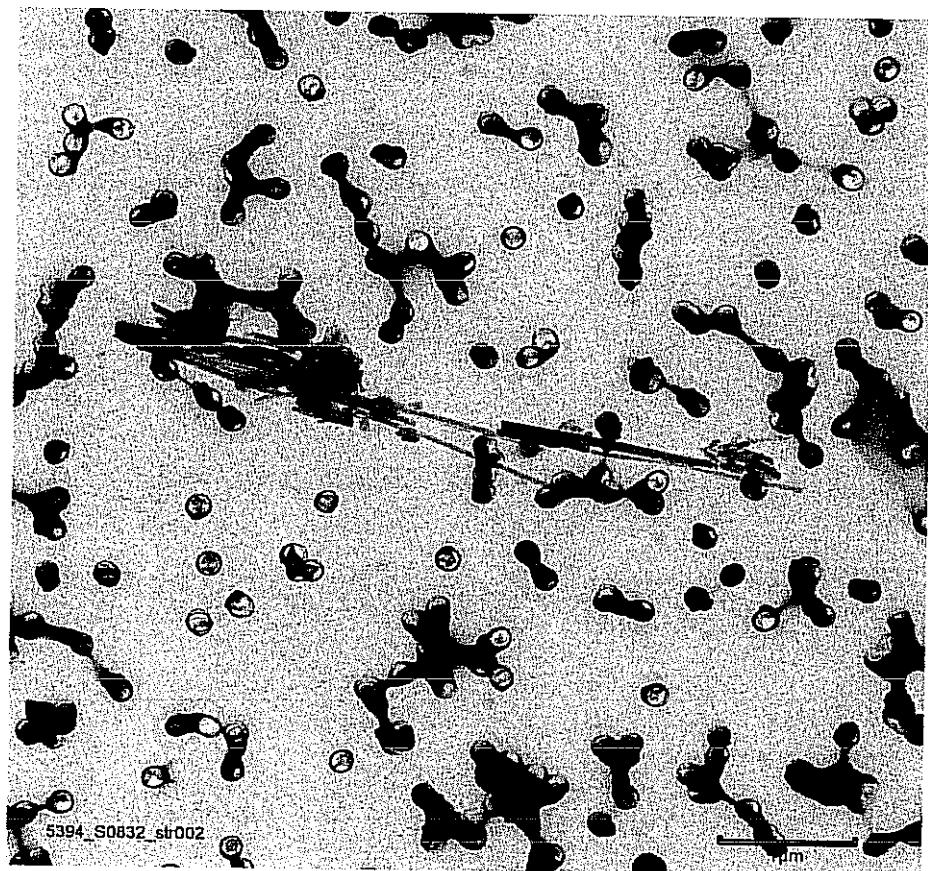
Str. #	CFA	#GO	Area GO	Vol Filt ml	Total Vol.	Area Samp.
51	1256	6	0.009	0.1	100	100

Anal. Sens = 232592.593 Str/CM2 LOD =^{3*} Anal. Sens = 697777.778

Total = 11862222.222 Str/CM2

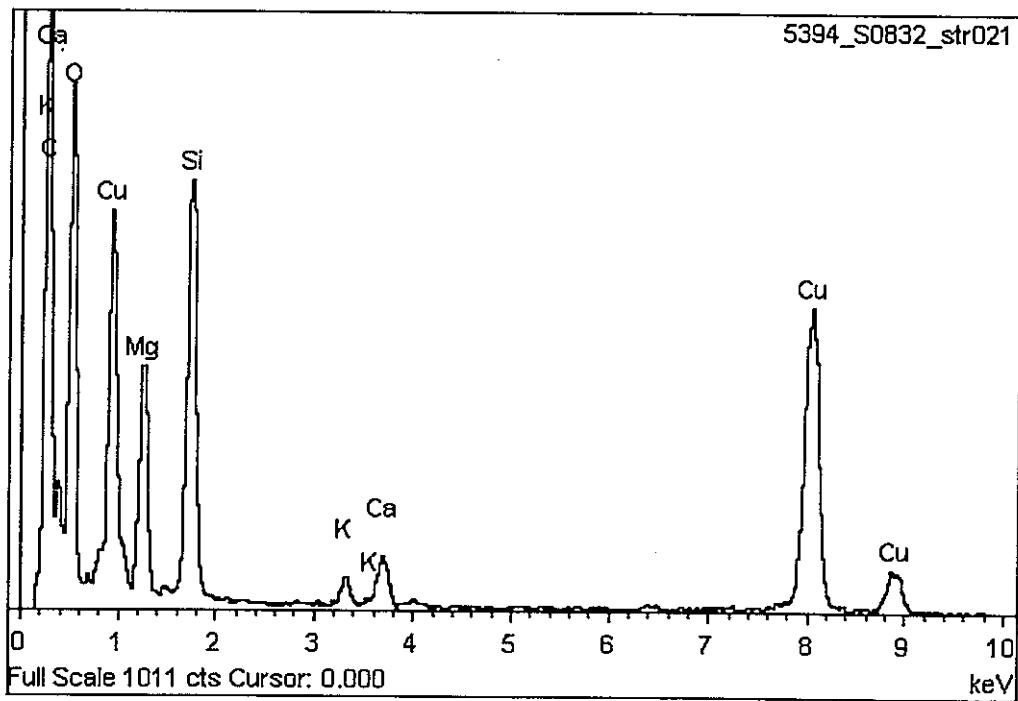
* According to ASTM D6620

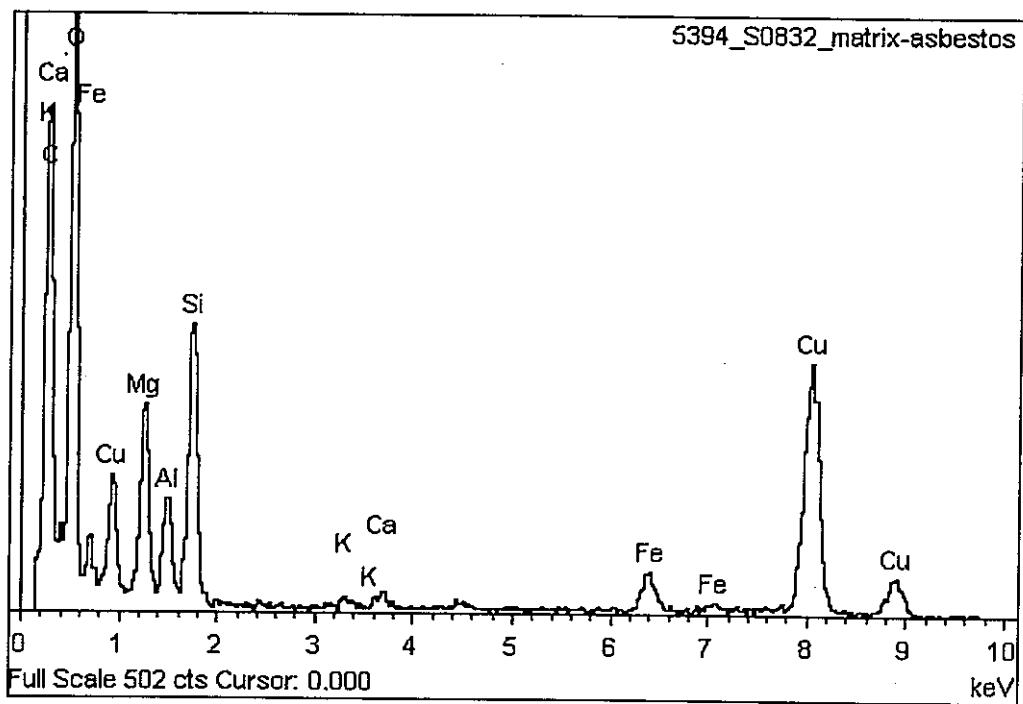
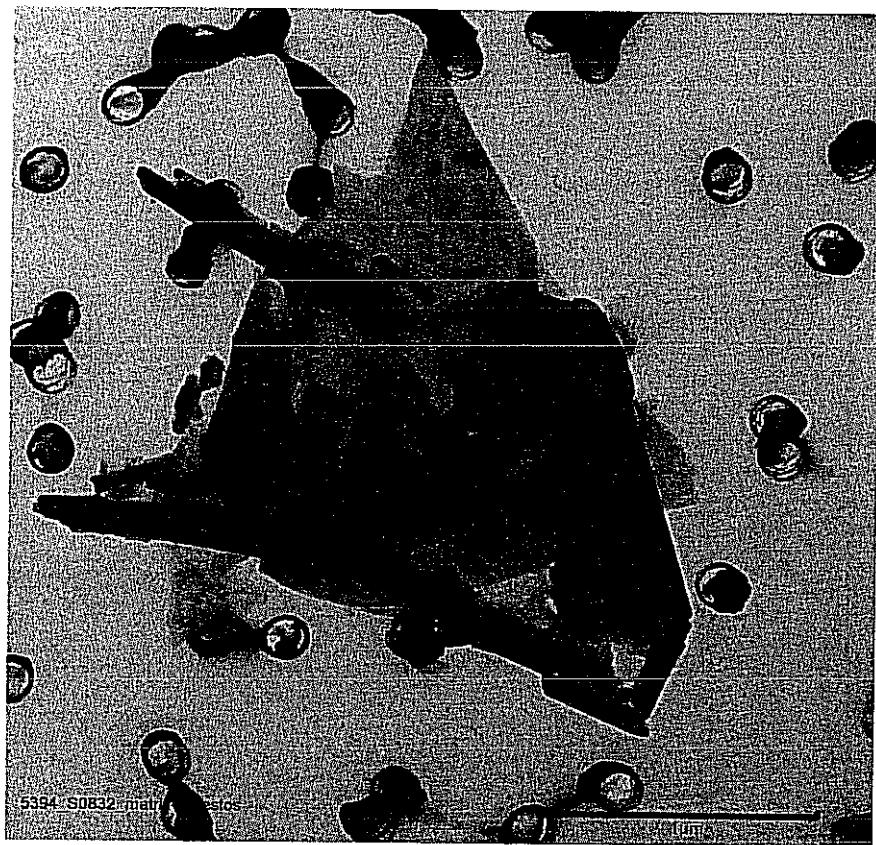


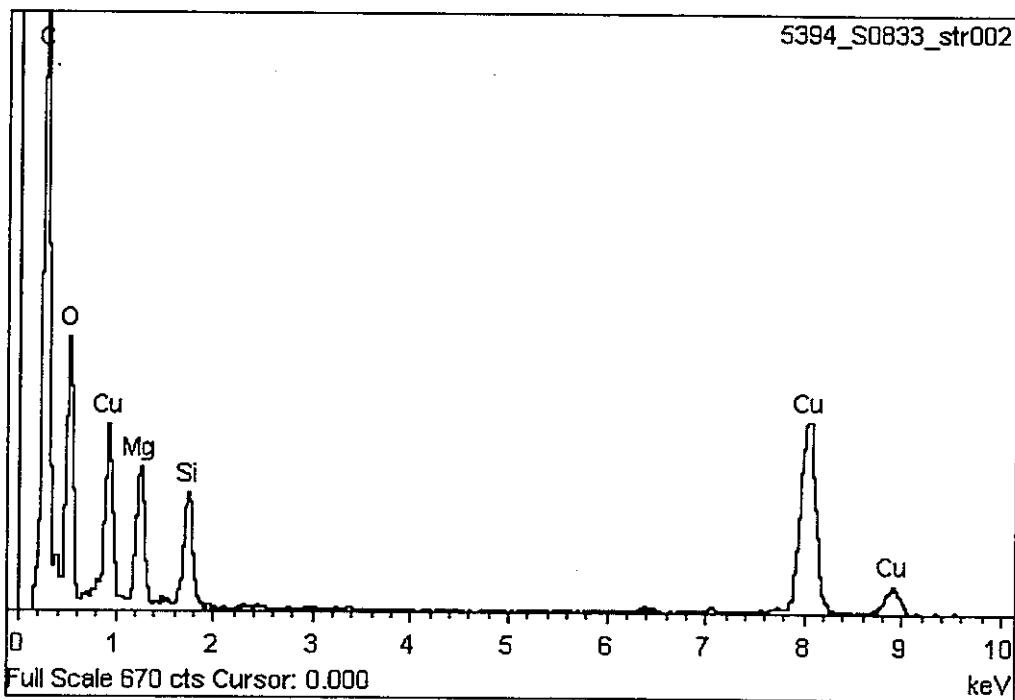
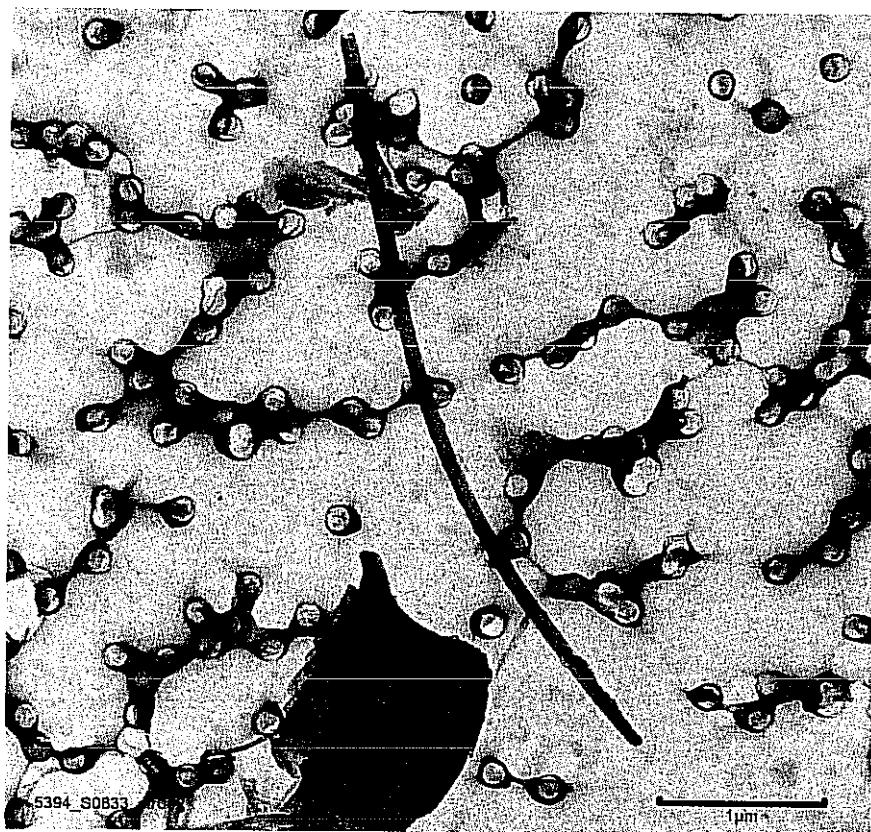


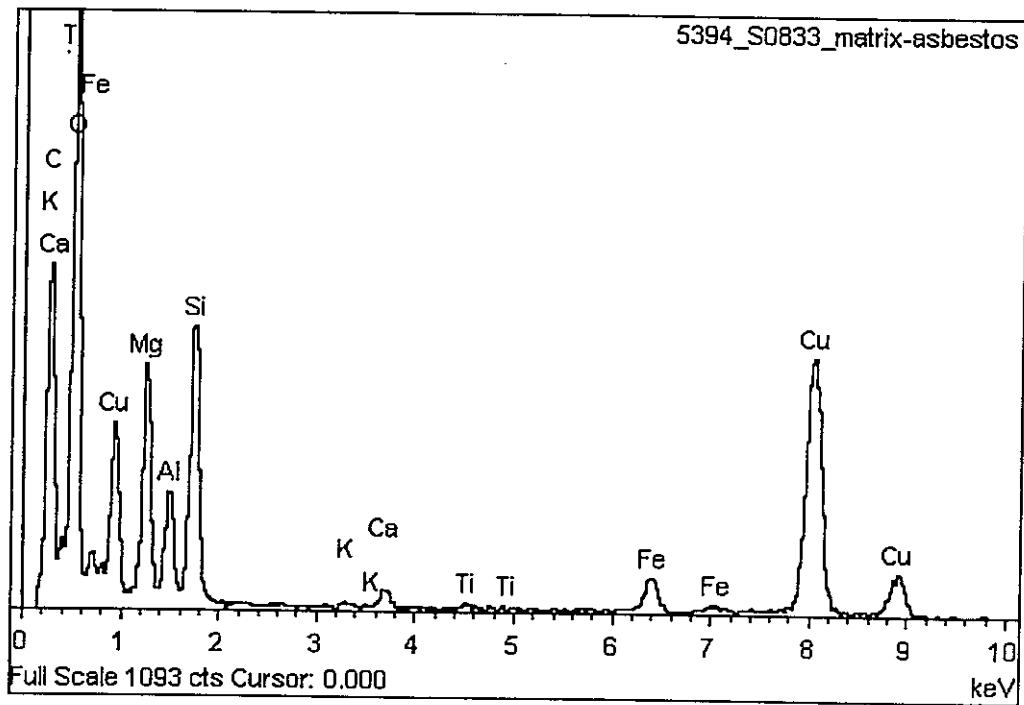
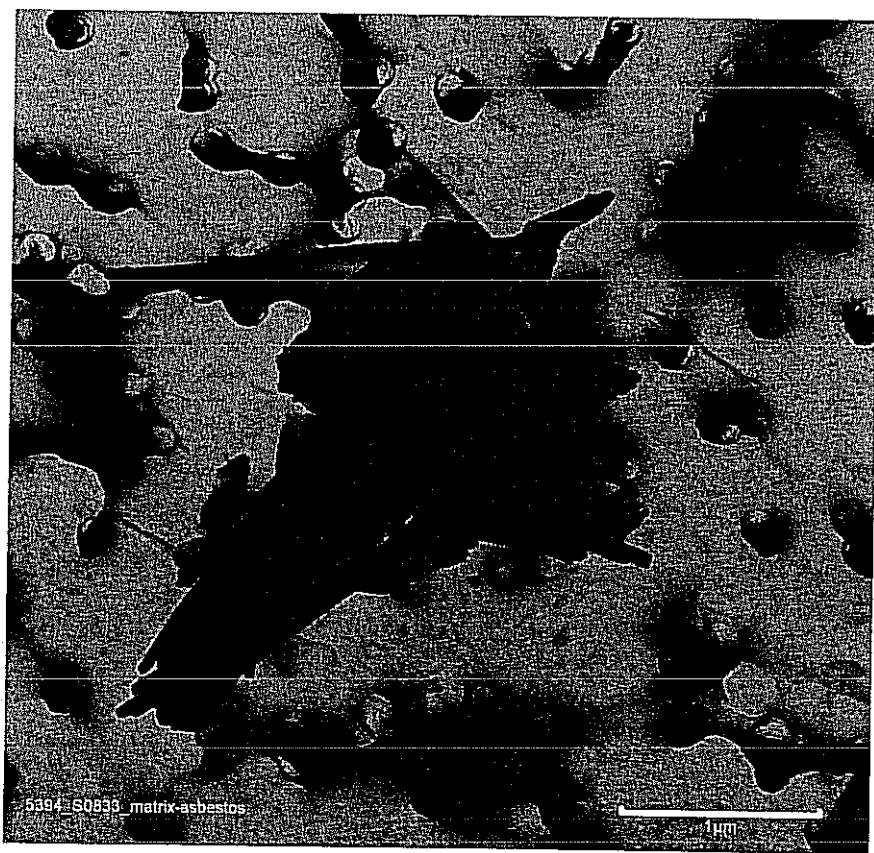


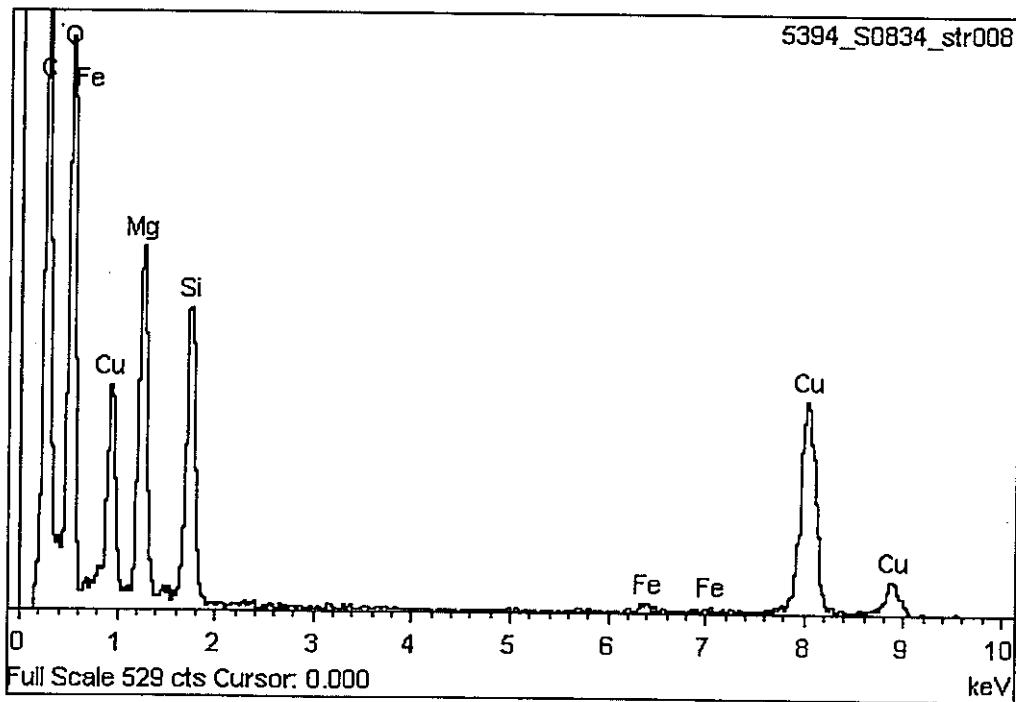
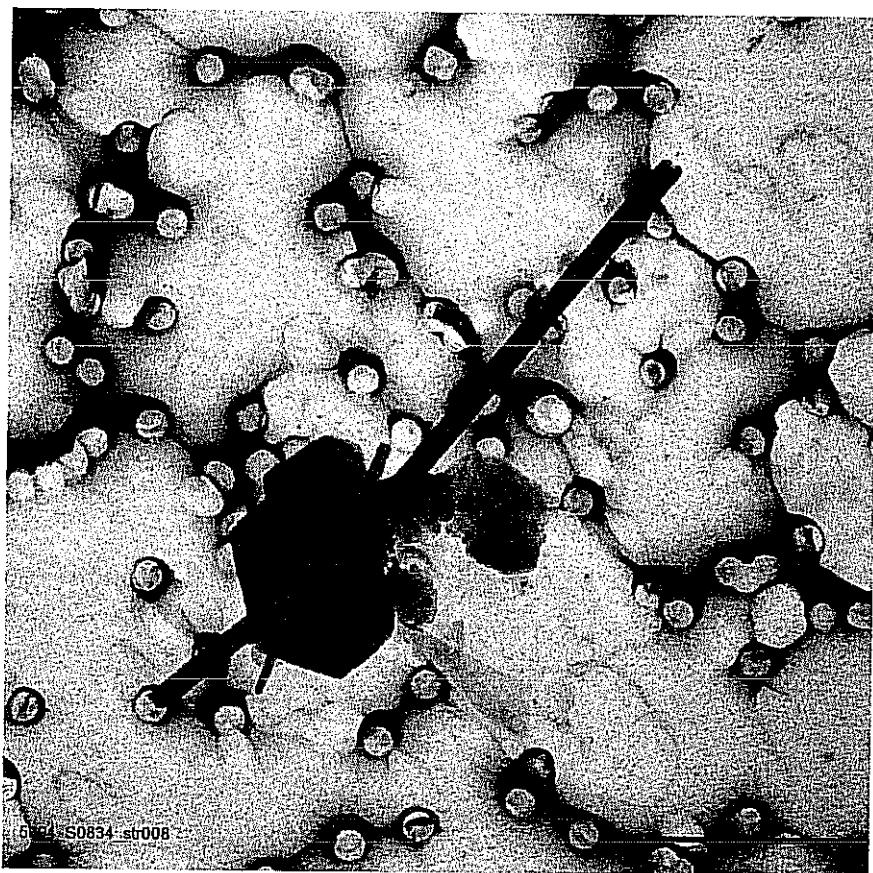
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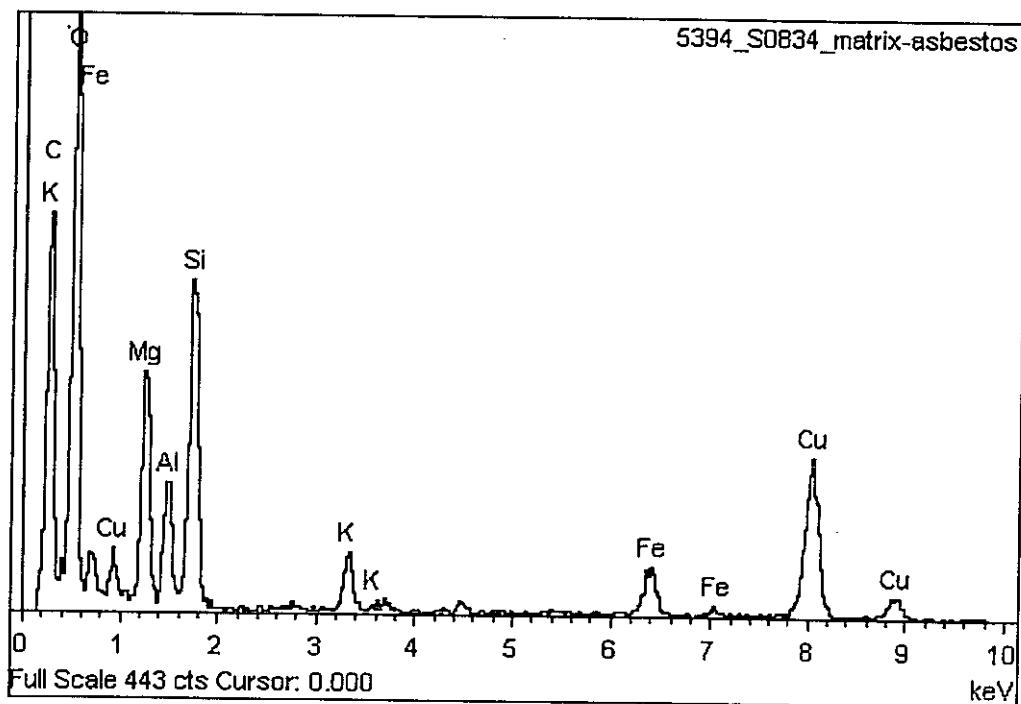
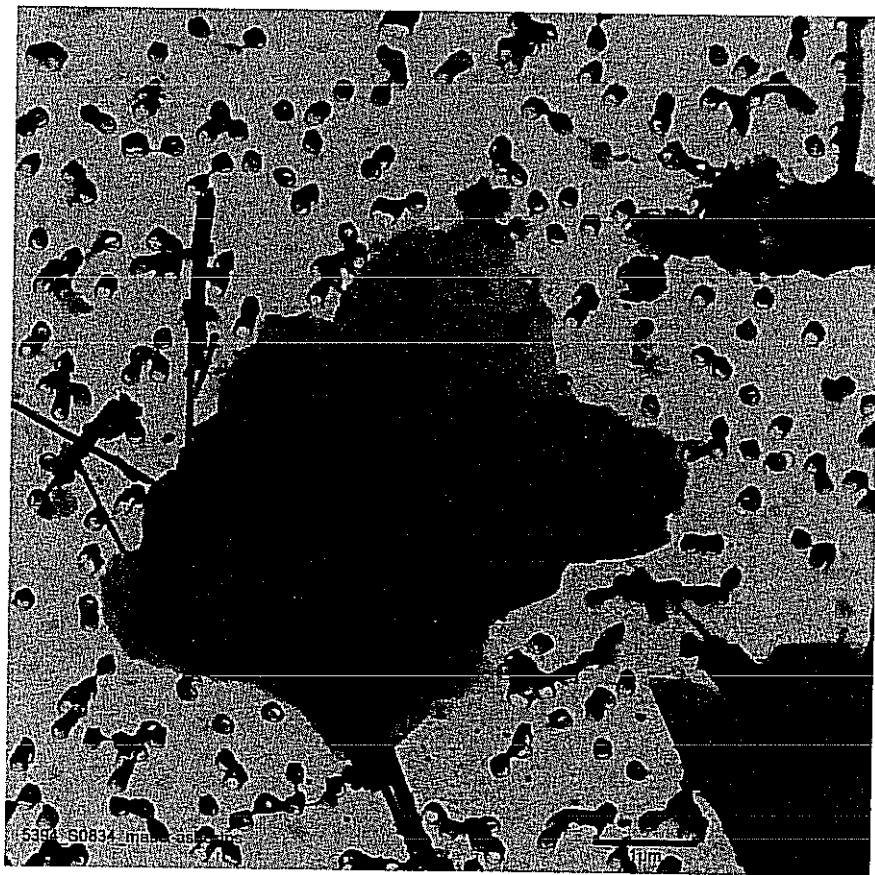


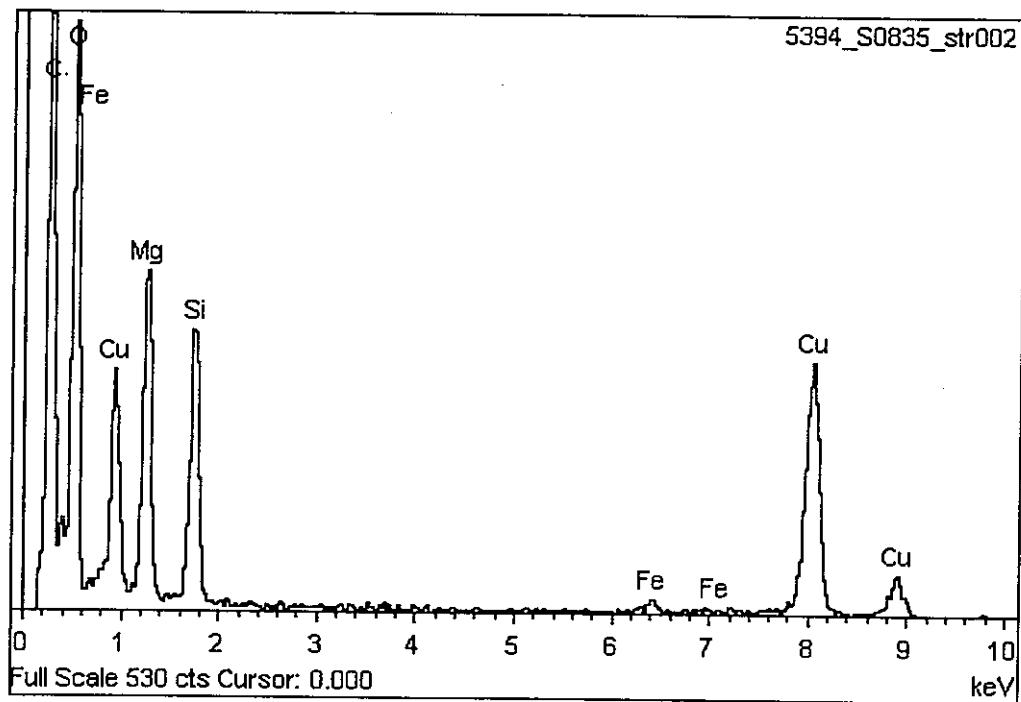
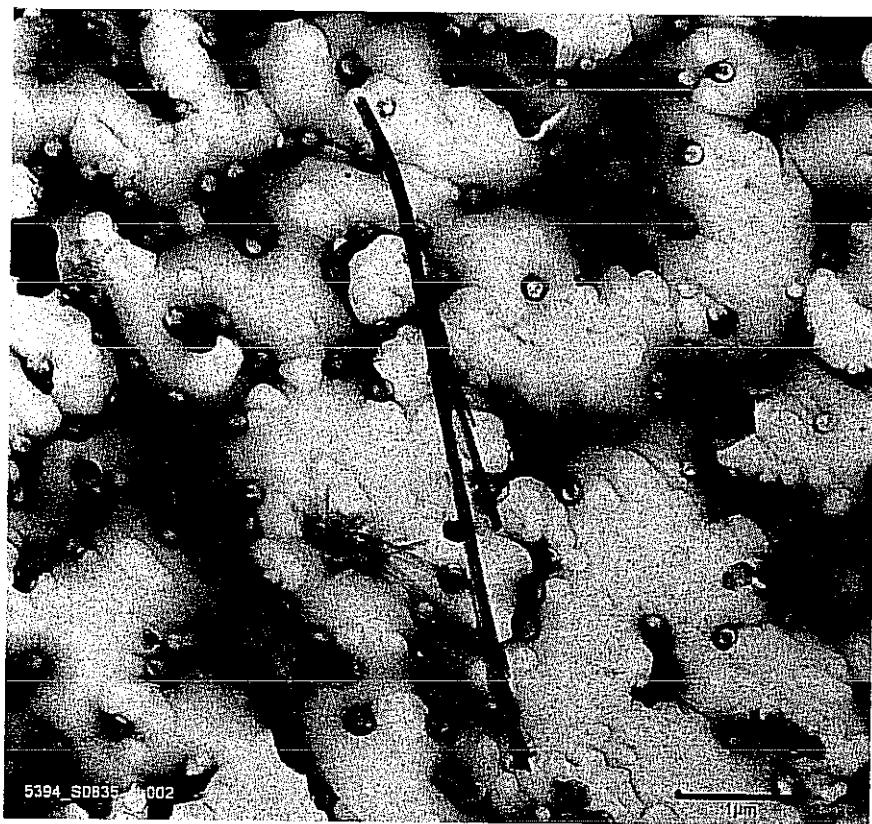


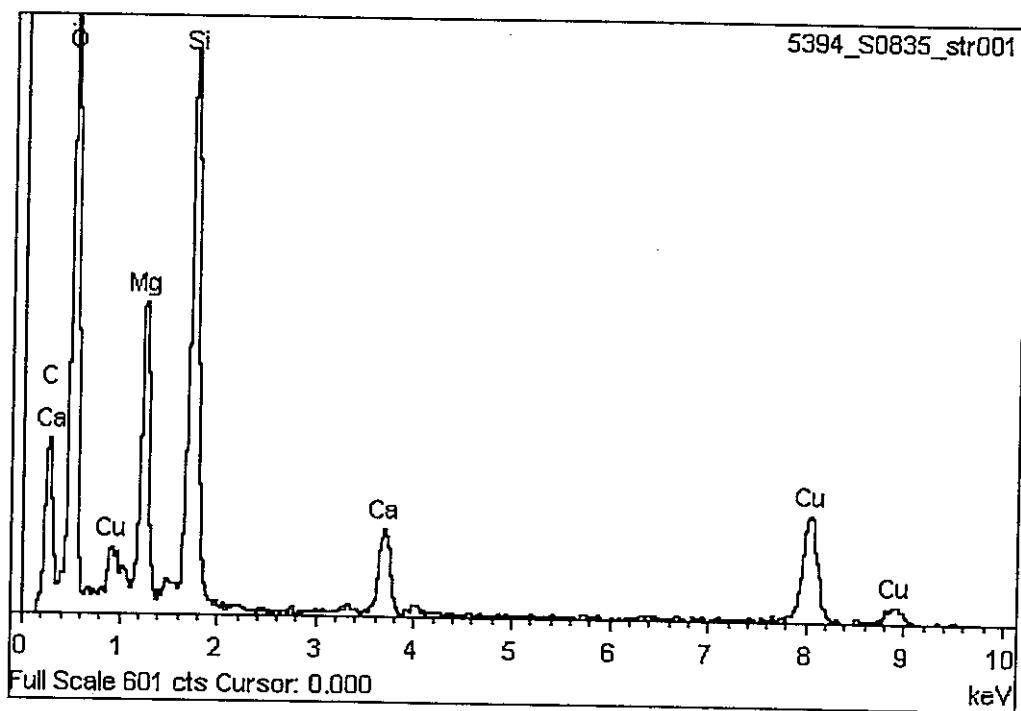
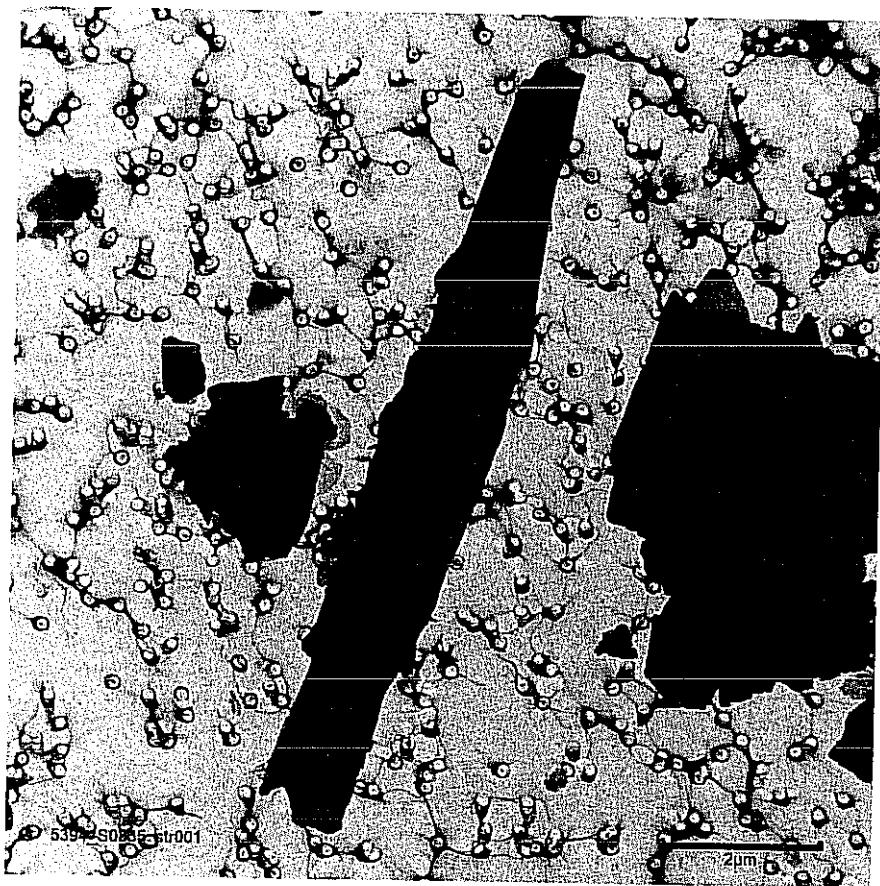


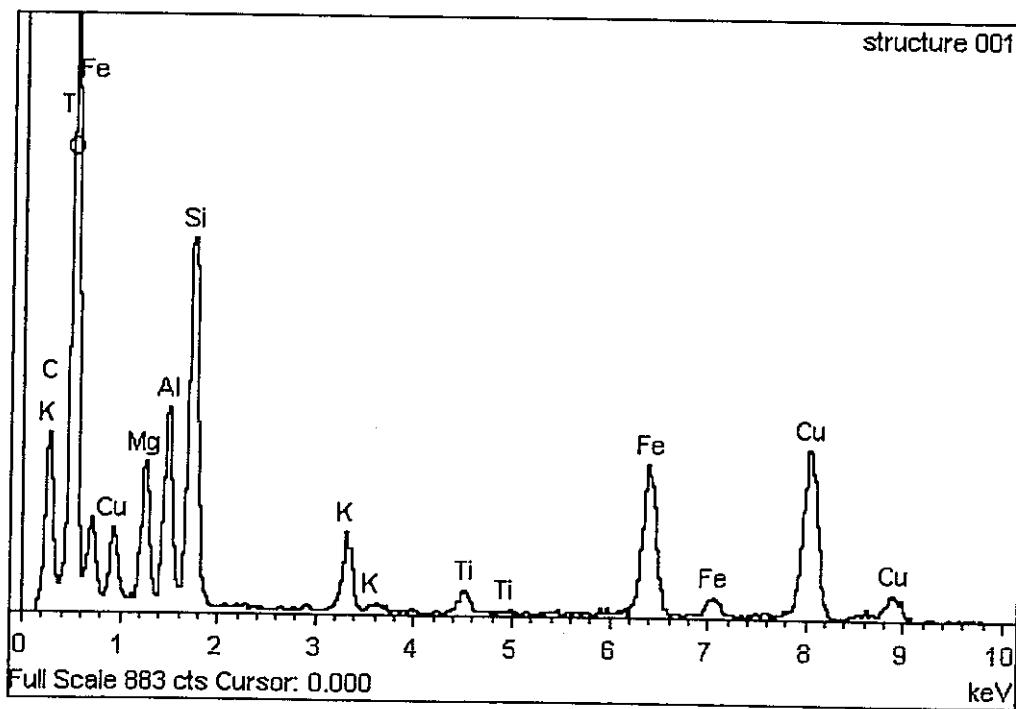
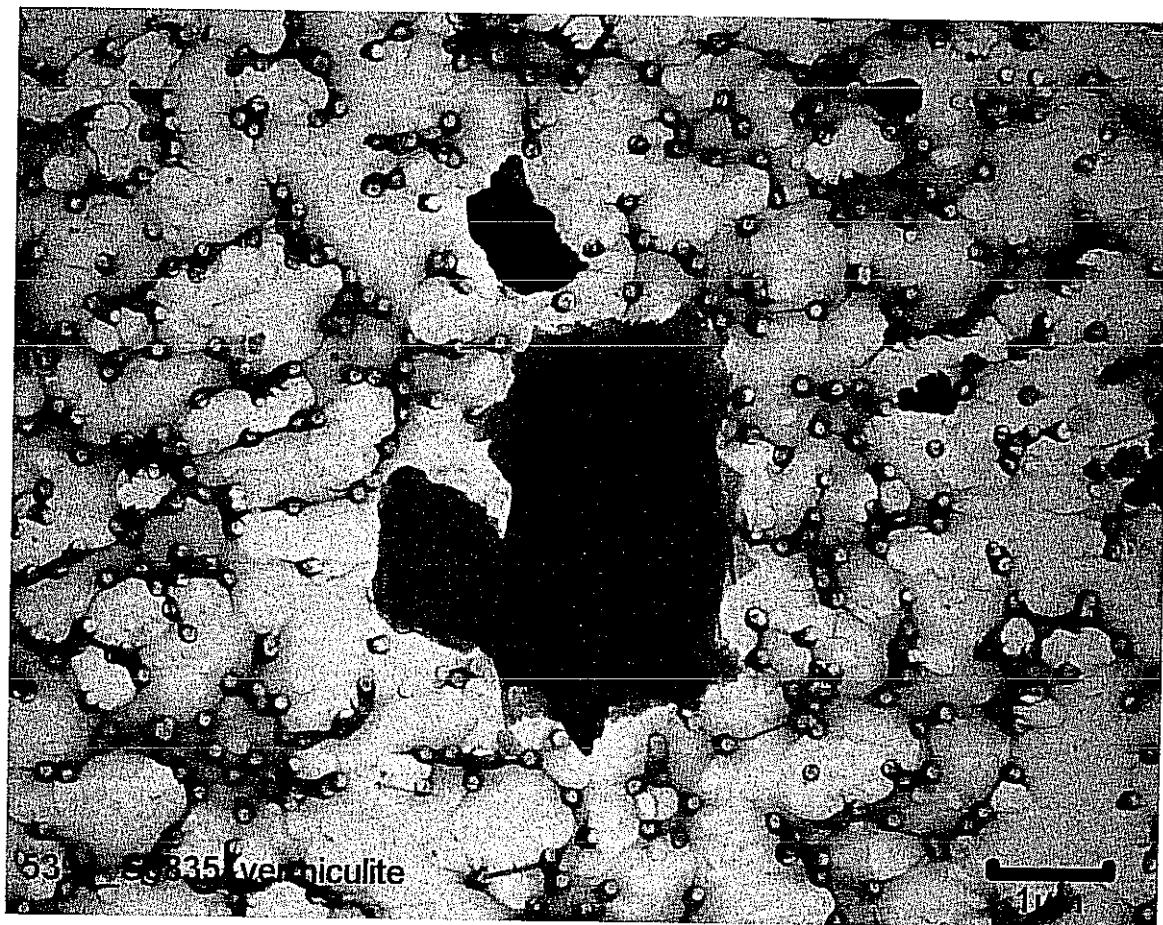


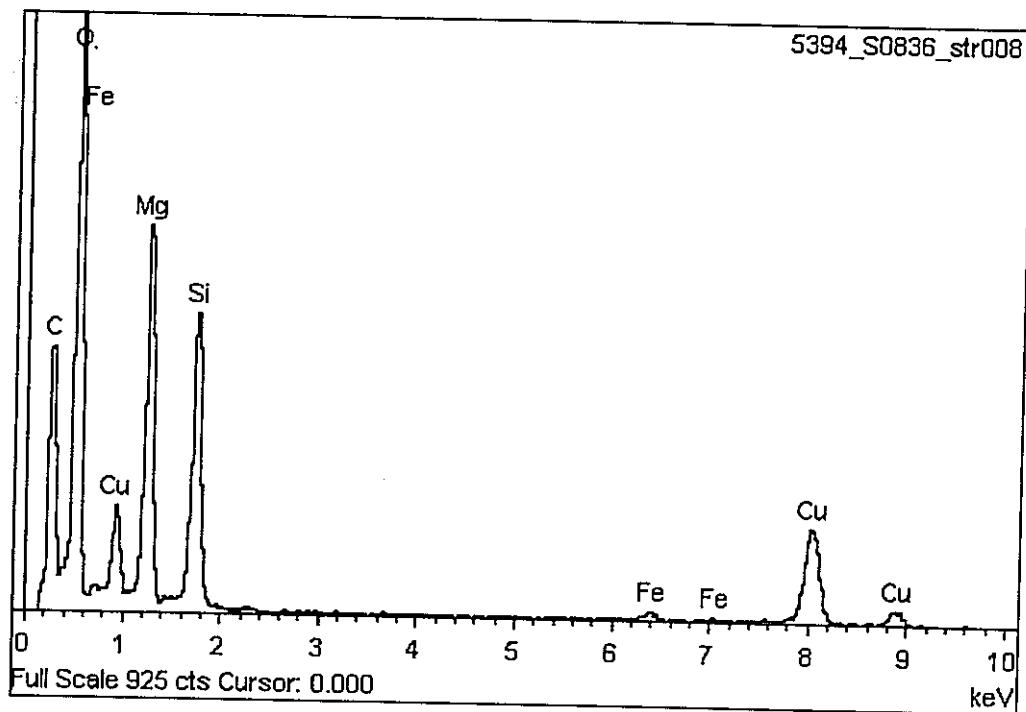
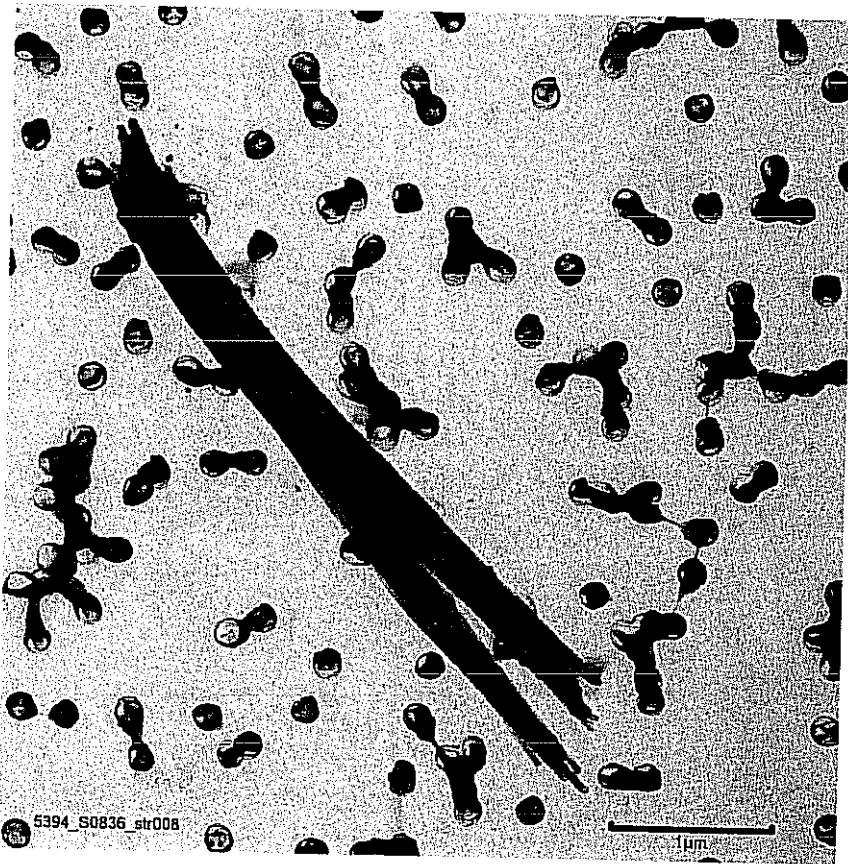


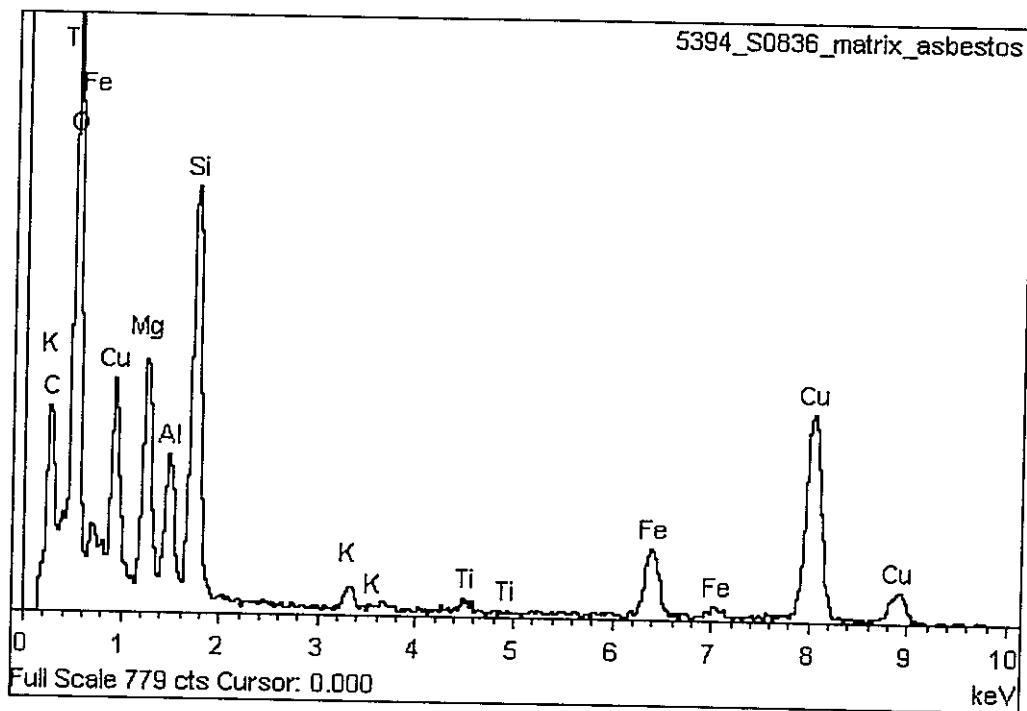
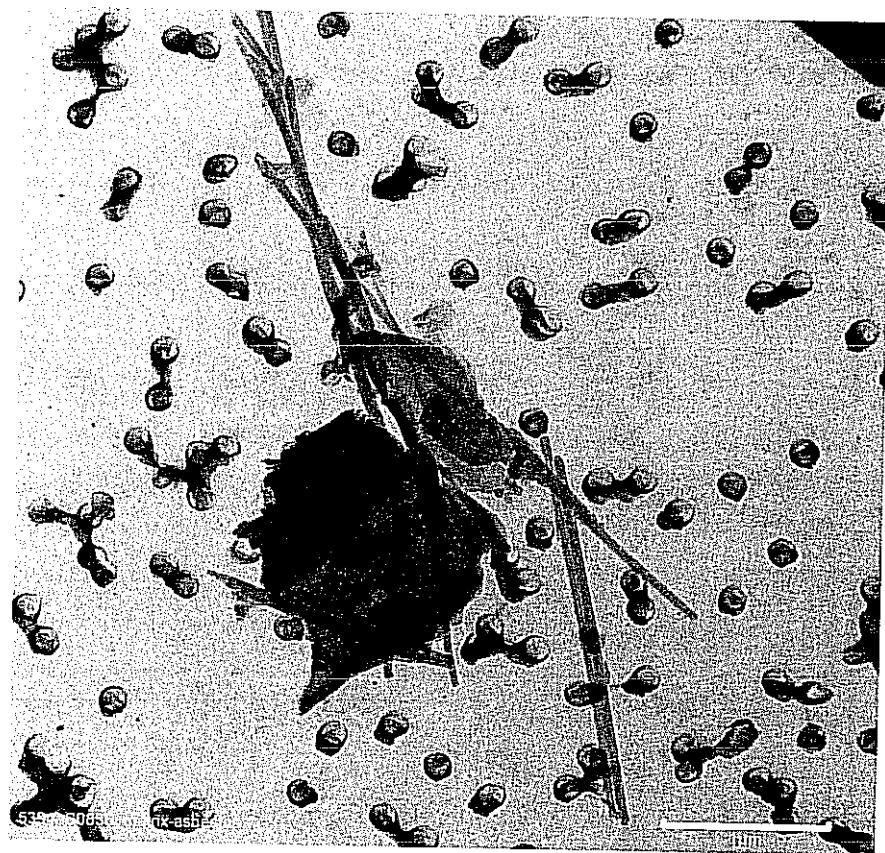












MVA Project# 5394
 MVA Sample# S0832
 Client I.D.: 01.VA
 Instrument: Philips120
 Magnification: 24,000
 Acc. Voltage: 100

Amt Collected(cm²): 100
 Amt Prepped(cm²): 0.1
 Filter Area (mm²): 1256
 Filter Type: PC
 Openings Analyzed: 6
 Grid Opening (mm²): 0.009

Analyst: WH
 Date: 7/26/07 - 7/27/07
 Page: 1 of 2
 Comments: 0.1ml
 ASTM Method: D6480
 or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	H1	1	M	1.5	0.1	C			0.6	0.04
		2	B	11.5	0.6	C	C	photo	4.8	0.25
		3	F	22.0	0.1	C			9.2	0.04
		4	B	6.0	0.2	C			2.5	0.08
		5	F	8.0	0.1	C			3.3	0.04
		6	F	8.0	0.1	C			3.3	0.04
I3		7	F	10.0	0.2	C			4.2	0.08
		8	F	15.0	0.1	C			6.3	0.04
		9	B	5.0	0.2	C			2.1	0.08
		10	F	16.0	0.1	C			6.7	0.04
		11	F	11.5	0.1	C			4.8	0.04
		12	B	7.0	0.2	C			2.9	0.08
G5		13	F	3.5	0.1	C			1.5	0.04
		14	F	2.1	0.1	C			0.9	0.04
		15	B	4.5	0.2	C			1.9	0.08
		16	F	2.9	0.1	C			1.2	0.04
		17	F	5.5	0.1	C			2.3	0.04
		18	F	2.1	0.15	C			0.9	0.06
		19	B	3.6	0.2	C			1.5	0.08
		20	C	6.0	4	C			2.5	1.67
		21	F	5.6	1	A	AO	Amphibole "other"	2.3	0.42
		22	F	3.5	0.1	C			1.5	0.04
		23	F	5.0	0.1	C			2.1	0.04
F7		24	F	6.0	0.1	C			2.5	0.04
		25	F	17.5	0.1	C			7.3	0.04
		26	F	3.0	0.15	C			1.3	0.06
		27	B	3.5	0.15	C			1.5	0.06
		28	F	21.5	0.1	C			9.0	0.04
		29	F	11.0	0.1	C			4.6	0.04
		30	B	5.0	0.5	C			2.1	0.21
		31	F	6.0	0.1	C			2.5	0.04
		32		18.0	0.1	C			7.5	0.04
		33		12.0	0.1	C			5.0	0.04
G9		34	F	18.0	0.1	C			7.5	0.04
		35	F	13.5	0.1	C			5.6	0.04

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project# 5394
MVA Sample# S0832
Client I.D.: 01.VA
Instrument: Philips120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm²): 100
Amt Prepped(cm²): 0.1
Filter Area (mm²): 1256
Filter Type: PC
Openings Analyzed: 6
Grid Opening (mm²): 0.009

Analyst: WH
Date: 7/26/07 - 7/27/07
Page: 2 of 2
Comments: 0.1ml
ASTM Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project# 5394
MVA Sample# S0833
Client I.D.: 02.VA
Instrument: Philips 120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm²): 100
Amt Prepped(cm²): 1
Filter Area (mm²): 1256
Filter Type: PC
Openings Analyzed: 10
Grid Opening (mm²): 0.009

Analyst: WH
Date: 7/26/2007
Page: 1 of 1
Comments: 1.0 ml
ASTM Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite. N = Non Asbestos

MVA Project# 5394
 MVA Sample# S0834
 Client I.D.: 03.VA
 Instrument: Philips120
 Magnification: 24,000
 Acc. Voltage: 100

Amt Collected(cm²): 100
 Amt Prepped(cm²): 0.1
 Filter Area (mm²): 1256
 Filter Type: PC
 Openings Analyzed: 4
 Grid Opening (mm²): 0.009

Analyst: WH
 Date: 7/27/2007-7/30/07
 Page: 1 of 2
 Comments: 0.1 ml
 ASTM Method: D6480
or D5755

Grid	Opening	Structure Number*	Structure Type	Length** (cm)	Width** (cm)	SAED	EDS	Comments	Length*** (μm)	Width*** (μm)
1	B4	1	F	31.5	0.1	C			13.1	0.04
		2	F	13.5	0.1	C			5.6	0.04
		3	F	23.5	0.1	C			9.8	0.04
		4	F	23.5	0.1	C			9.8	0.04
		5	F	48.0	0.1	C			20.0	0.04
		6	M	2.5	0.15	C			1.0	0.06
		7	F	4.6	0.1	C			1.9	0.04
		8	B	9.0	0.2	C	C	photo	3.8	0.08
		9	F	3.0	0.1	C			1.3	0.04
		10	F	5.4	0.1	C			2.3	0.04
		11	F	24.5	0.1	C			10.2	0.04
		12	F	3.5	0.2	C			1.5	0.08
		13	F	3.5	0.1	C			1.5	0.04
		14	F	32.5	0.1	C			13.5	0.04
		15	F	8.0	0.1	C			3.3	0.04
		16	F	186.5	0.1	C			77.7	0.04
		17	F	70.5	0.1	C			29.4	0.04
		18	F	7.5	0.1	C			3.1	0.04
		19	F	6.0	0.1	C			2.5	0.04
		20	F	7.0	0.1	C			2.9	0.04
		21	F	12.5	0.1	C			5.2	0.04
		22	F	14.0	0.1	C			5.8	0.04
		23	F	15.5	0.1	C			6.5	0.04
		24	F	3.5	0.15	C			1.5	0.06
		25	B	11.0	0.9	C			4.6	0.38
C6	26	B		11.5	0.5	C			4.8	0.21
		27	F	2.0	0.1	C			0.8	0.04
		28	F	2.0	0.15	C			0.8	0.06
		29	F	3.0	0.1	C			1.3	0.04
		30	F	3.5	0.1	C			1.5	0.04
		31	F	16.5	0.1	C			6.9	0.04
		32	F	9.5	0.1	C			4.0	0.04
		33	F	14.0	0.1	C			5.8	0.04
		34	F	3.5	0.1	C			1.5	0.04
		35	F	12.0	0.1	C			5.0	0.04

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project# 5394
MVA Sample# S0834
Client I.D.: 03.VA
Instrument: Philips120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm^2): 100
Amt Prepped(cm^2): 0.1
Filter Area (mm^2): 1256
Filter Type: PC
Openings Analyzed: 4
Grid Opening (mm^2): 0.009

Analyst: WH
Date: 7/27/2007-7/30/07
Page: 2 of 2
Comments: 0.1 ml
ASTM Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos.

MVA Project# 5394
MVA Sample# S0835
Client I.D.: 04.VA
Instrument: Philips 120
Magnification: 24,000
Acc. Voltage: 100

Amt Collected(cm^2): 100
Amt Prepped(cm^2): 10
Filter Area (mm^2): 1256
Filter Type: PC
Openings Analyzed: 10
Grid Opening (mm^2): 0.009

Analyst: WH
Date: 7/30/2007
Page: 1 of 1
Comments: 10 ml
STM Method: D6480
or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project# 5394 Amt Collected(cm²): 100
 MVA Sample# S0836 Amt Prepped(cm²): 0.1
 Client I.D.: 05.VA Filter Area (mm²): 1256
 Instrument: Philips120 Filter Type: PC
 Magnification: 24,000 Openings Analyzed: 6
 Acc. Voltage: 100 Grid Opening (mm²): 0.009

Analyst: WH Date: 7/30/2007
 Page: 1 of 2 Comments: 0.1 ml
 ASTM Method: D6480 or D5755 X

Grid	Opening	Structure Number*	Structure Type	Length**	Width**	SAED	EDS	Comments	Length***	Width***
				(cm)	(cm)				(μ m)	(μ m)
1	A2	1	F	4.5	0.1	C			1.9	0.04
		2	F	13.5	0.1	C			5.6	0.04
		3	F	5.5	0.1	C			2.3	0.04
	B4	4	F	12.5	0.1	C			5.2	0.04
		5	F	3.8	0.1	C			1.6	0.04
		6	F	4.5	0.1	C			1.9	0.04
		7	F	7.0	0.1	C			2.9	0.04
		8	B	11.0	1	C	C	photo	4.6	0.42
		9	F	16.5	0.1	C			6.9	0.04
		10	F	31.5	0.1	C			13.1	0.04
		11	F	2.5	0.1	C			1.0	0.04
		12	B	6.0	0.4	C			2.5	0.17
		13	F	3.0	0.1	C			1.3	0.04
		14	F	4.0	0.1	C			1.7	0.04
		15	B	11.0	0.2	C			4.6	0.08
	C6	16	F	6.0	0.15	C			2.5	0.06
		17	F	3.6	0.1	C			1.5	0.04
		18	F	6.0	0.1	C			2.5	0.04
		19	F	2.5	0.1	C			1.0	0.04
		20	F	10.0	0.1	C			4.2	0.04
		21	F	6.5	0.1	C			2.7	0.04
		22	B	29.0	1	C			12.1	0.42
		23	F	12.5	0.1	C			5.2	0.04
		24	B	8.0	0.6	C			3.3	0.25
	D8	25	F	3.2	0.1	C			1.3	0.04
		26	F	2.5	0.15	C			1.0	0.06
		27	F	2.5	0.1	C			1.0	0.04
		28	M	3.0	0.1	C			1.3	0.04
		29	F	16.0	0.1	C			6.7	0.04
		30	F	7.0	0.1	C			2.9	0.04
	F9	31	F	3.2	0.1	C			1.3	0.04
		32	F	11.5	0.1	C			4.8	0.04
		33	F	12.9	0.1	C			5.4	0.04
		34	F	5.0	0.1	C			2.1	0.04
		35	F	2.2	0.1	C			0.9	0.04

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos

MVA Project#	5394	Amt Collected(cm ²)	100	Analyst:	WH
MVA Sample#	S0836	Amt Prepped(cm ²)	0.1	Date:	7/30/2007
Client I.D.:	05.VA	Filter Area (mm ²)	1256	Page:	2 of 2
Instrument:	Philips120	Filter Type:	PC	Comments:	0.1 ml
Magnification:	24,000	Openings Analyzed:	6	ASTM Method:	D6480
Acc. Voltage:	100	Grid Opening (mm ²)	0.009		or D5755 X

*NFD or NSD = No Fibers Detected or No Structures Detected

** On Screen Measurement

*** Calculated Actual Measurement (On Screen Measurement X 10,000/Magnification)

Structure Type: B = Bundle, C = Cluster, F = Fiber, M = Matrix

SAED: C = Chrysotile, A = Amphibole

EDS: C = Chrysotile, AM = Amosite, CR = Crocidolite, AC = Actinolite, AN = Anthophyllite, TR = Tremolite, N = Non Asbestos